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| APPLICATION NO.                  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|----------------------------------|-------------|----------------------|---------------------|------------------|
| 10/815,555                       | 04/01/2004  | Scott A. Chalmers    | FILM.P008           | 7145             |
| 53186                            | 7590        | 03/31/2006           | EXAMINER            |                  |
| COURTNEY STANIFORD & GREGORY LLP |             |                      | RACHUBA, MAURINA T  |                  |
| P.O. BOX 9686                    |             |                      | ART UNIT            | PAPER NUMBER     |
| SAN JOSE, CA 95157               |             |                      | 3723                |                  |

DATE MAILED: 03/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/815,555

Applicant(s)

CHALMERS ET AL.

Examiner

M Rachuba

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-51 is/are pending in the application.
- 4a) Of the above claim(s) 24-29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 and 30-51 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 November 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 9/2/04, 11/26/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election without traverse of species 1, claims 1-23 and 30-51 in the reply filed on 17 January 2006 is acknowledged.
2. Claims 24-29 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 17 January 2006.

### ***Claim Objections***

3. Claims 43 and 44 are objected to because of the following informalities: Claim 43, line 5 limits "the rotating platen". It has not been previously claimed that the platen rotates. Claim 44, dependent on claim 43, limits "the platen comprises a rotating platen". This appears to repeat the same structure set forth in claim 1. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1, 3-10, 12-15, 20-22, and 39-42 are rejected under 35 U.S.C. 102(e) as being anticipated by Yi et al, US006930782B1. '782 discloses the claimed invention,

including a reflectance image processing subsystem for acquiring one or more two dimensional images of the substrate during CMP and deriving therefrom information about the substrate useful for subsequent CMP of the substrate. The subsystem includes a capturing device for capturing a plurality of one-dimensional reflectance images and deriving the one or more two-dimensional images therefrom. The light from the subsystem is transmitted through one or more optically transparent elements in the platen and/or polishing pad. The light is transmitted from the elements in the platen or pad by means of first and second optical fiber bundles (cables 220, 226), that carries the reflected light to a wavelength dispersive element for dissecting spatial components of the one-dimensional image into their respective wavelength components. Please refer to figures 1 and 2, and column 2, lines 3-13 and lines 23-36; and column 3, lines 52 through column 6 lines 58; and figures 6 and 7 and their descriptions.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

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not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 2, 11, 17-22, 30-38 and 43-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yi et al, US006930782B1 in view of Bibby, Jr. et al, US006361646B1. '782 does not disclose that the platen is rotatable. '646 teaches that it is old and well known to provide a CMP processing apparatus with a rotatable platen, in this case an orbital platen, that the examiner considers to be rotational as it rotates relative to an axis. It would have been obvious to one of ordinary skill in the art to have provided '782 with the rotating pad and platen, as opposed to the linear pad and stationary platen disclosed by 782, as taught by '646, figure 1, as both linear and rotational CMP systems are old and well known in the art, and are considered equivalents for the purpose of planarizing substrates.

***Allowable Subject Matter***

9. Claims 16 and 23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. The following is a statement of reasons for the indication of allowable subject matter: The prior art of record does not disclose or fairly teach the terminating ends of the fibers are arranged in an arrangement in which terminating ends of fibers in the first bundle form first and second rows, and the terminating ends of fibers in the second bundle form a third row placed between the first and second rows. The prior art is silent

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as to how the optical fibers in the cables are arranged under the platen to collect the reflected image. '782 discloses the use of fiber optic cables, but does not disclose the structure, or how the cable ends are arranged relative to the platen.

***Conclusion***


11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Other similar CMP systems are cited of interest.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to M Rachuba whose telephone number is 571-272-4493. The examiner can normally be reached on Monday-Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Hail can be reached on 571-272-4485. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

M Rachuba  
Primary Examiner  
Art Unit 3723

  
3/29/06